November 2018
901052-001
Rev 00

TouchTunes

FRU Installation Guide
Replacing Angelina's Brand Bar PCBA

Purpose

This document explains how to install the Brand Bar Printed Circuit Board Assembly (PCBA) Field Replacement Unit (FRU) (kit P/N 600279-001) for an Angelina jukebox.

Audience

- TouchTunes Angelina jukebox operators
- TouchTunes Field Service and Customer Support
- TouchTunes Sales personnel

Estimated Time

30 minutes

Required Personnel

1 Technician

This document includes tasks of the following types:

☐	Software
☑	Electrical
☑	Mechanical

Topics

- Required Tools and Equipment
- Important Safety Information
- Included in the Kit
- Installing the Replacement Brand Bar PCBA
- Contacting TouchTunes Technical Support

Required Tools and Equipment

- Screw driver, Philips #1
- Screw driver, Philips #2
- Cutting tool (to cut cable ties)
- Cable ties for cable dressing (x 2)
- Nut driver, M4 (7mm) (or equivalent ratchet with extension)
- Anti-static wrist band

Important Safety Information

IMPORTANT: A properly-grounded anti-static wrist band should be worn at all times during the procedure presented in this document.

WARNING: When performing this procedure or any other maintenance on your jukebox, the unit must be powered off and its electrical power disconnected.

Included in the Kit

Ensure that you have received all the required parts before proceeding with this installation.

Part	Quantity	TouchTunes Part #
SUB,BRANDBAR,FLEX,X	1	301056-001
FAS, SCR, X-PAN, M3X8, ZN (provided in case existing screws are damaged or are lost)	4	200021-008
FAS, SNAP RIVET, 5mm, BLK NYL (provided in case existing snap rivets are damaged or are lost)	4	200098-005
FAS, WSHR, FLAT, M3, NYL (provided in case existing washers are damaged or are lost)	2	200281-001
MAN, FRU, BRANDBAR PCBA (this document)	1	901052-001

NOTE	For warranty returns, place the defective unit into the packaging/container from which you remove the replacement unit. You must obtain a valid Return Authorization (RA) number from TouchTunes before shipping a defective unit back to TouchTunes.

Installing the Replacement Brand Bar PCBA

1. Open the Angelina jukebox.
2. Press the **MNGR** button on the I/O Board to open the Operator interface main menu.
3. On the Angelina screen, press the **REBOOT** button.
4. When you hear the BIOS beep, power down Angelina by setting the rocker switch on the Power Supply Unit (PSU) to the OFF (**O**) position.

WARNING: Never shut down or unplug Angelina without first performing a reboot and waiting for the BIOS beep. Doing so can cause damage to the hard drive and make it unusable.

5. Unplug the AC power cable from the wall socket.

6. Remove all connections from the bottom panel of the monitor (power, serial, and DVI).

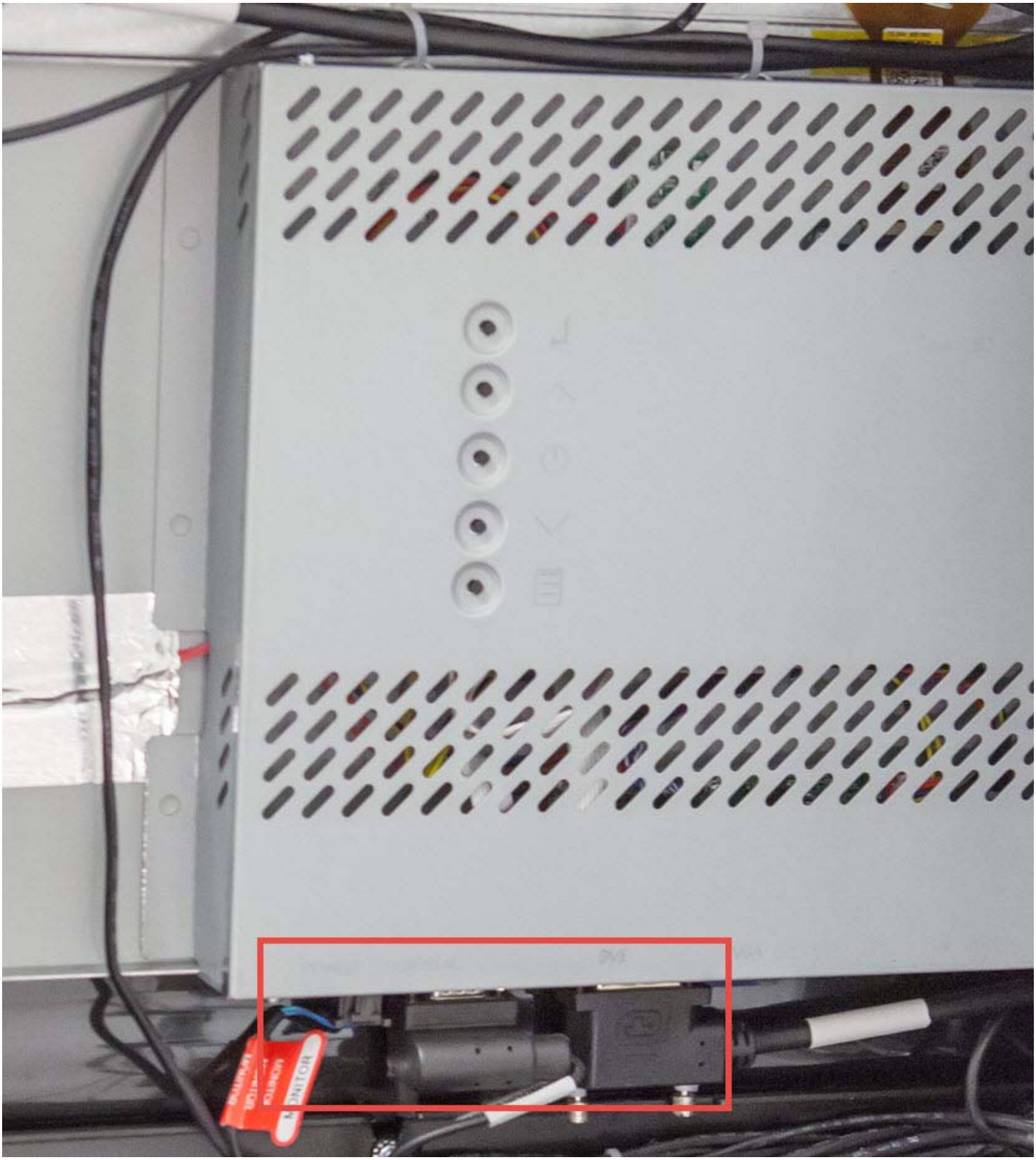

Figure 1: Touch screen monitor - bottom panel

7. Loosen the 2 screws at the top part of the monitor (highlighted in red in the following figure). These are captive screws and do not fall off.

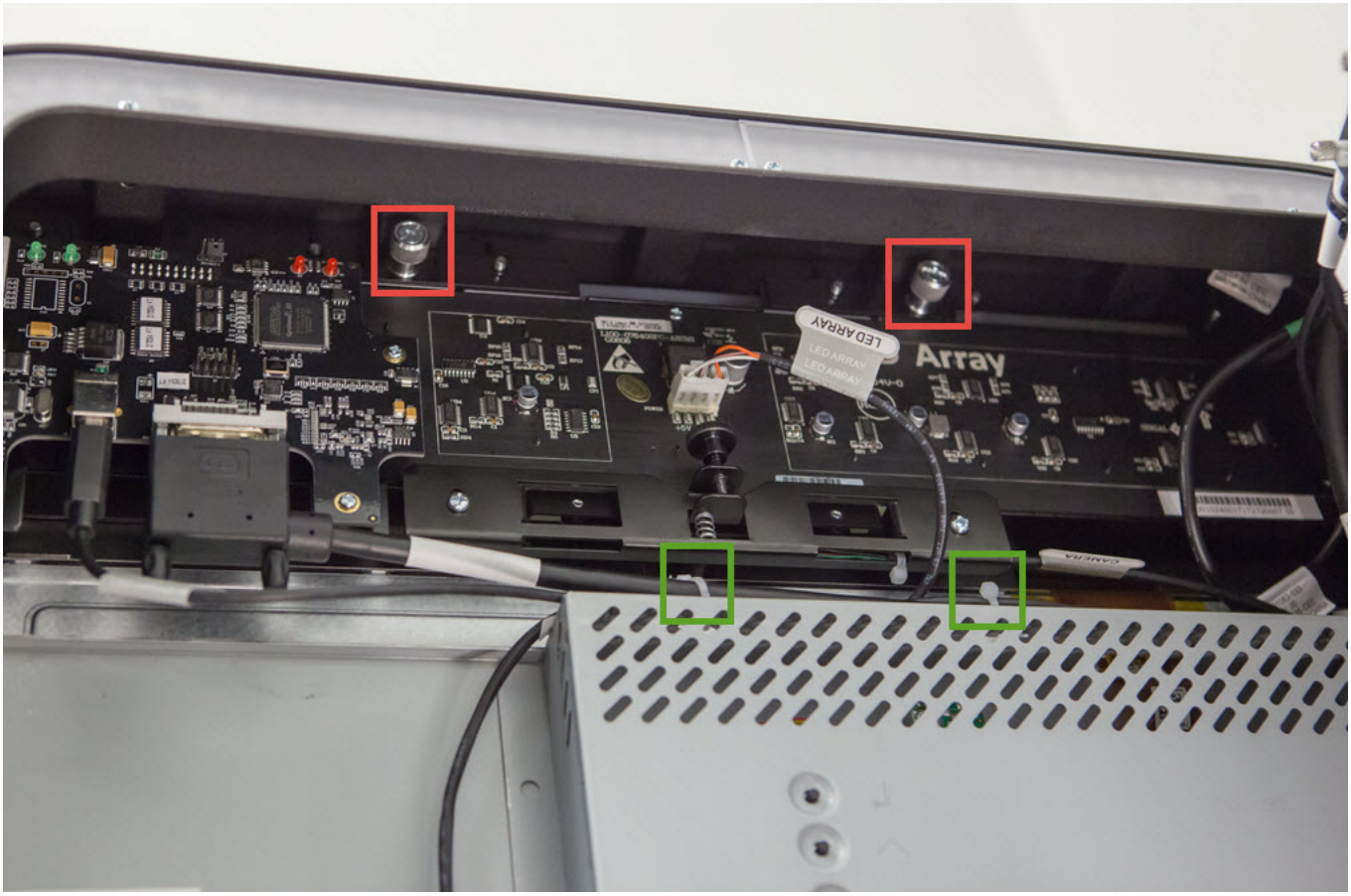

Figure 2: Location of top nuts and cable ties

8. Snip the cable ties holding the cables together on top of the monitor (highlighted in green in the previous figure).

9. Remove all cables from the Visualizer (LED Array and PCB).

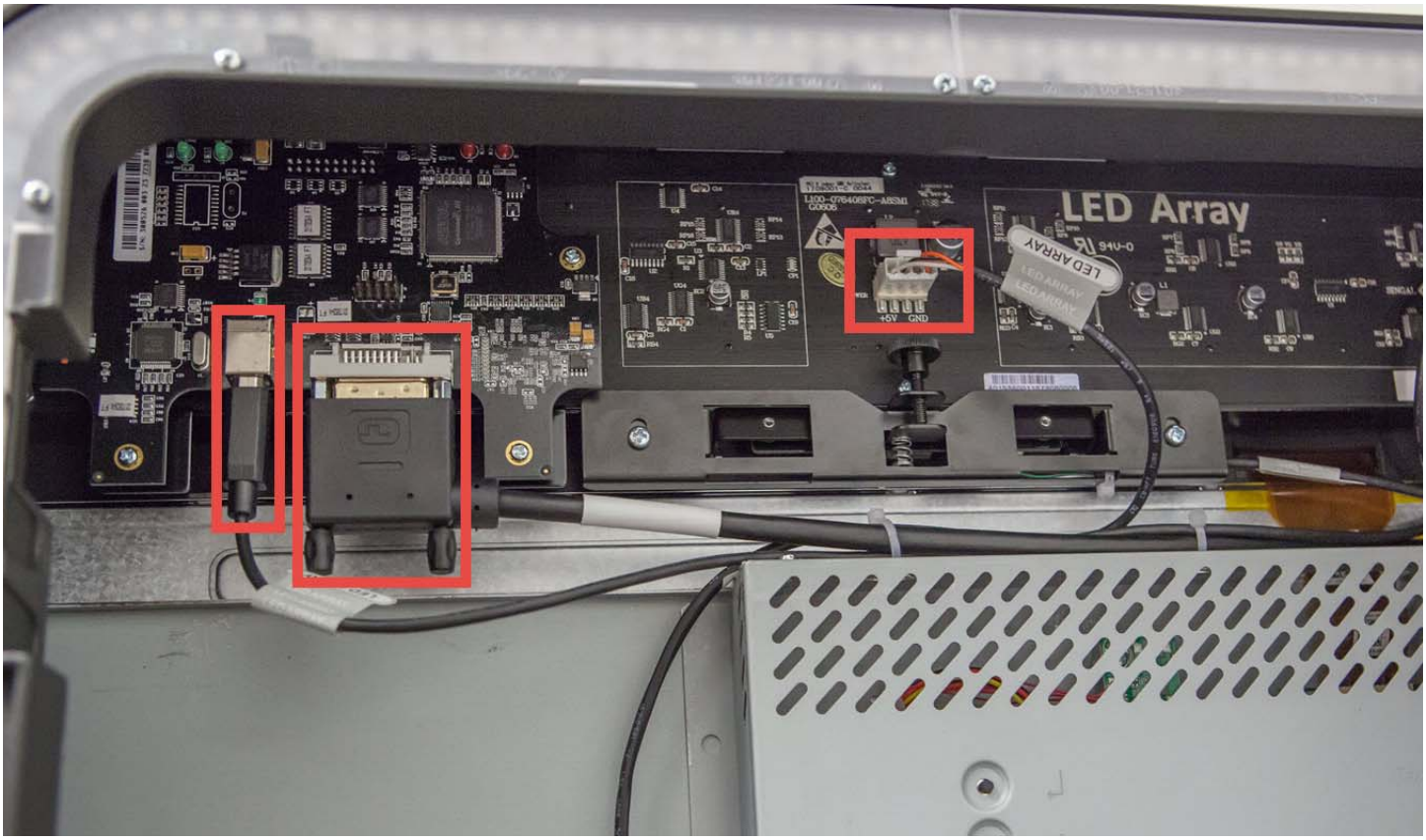

Figure 3: Visualizer cable connections

10. Remove the 3 nuts from the bottom part of the monitor and set them aside. The bottom center nut is shown in the following figure. The location of the left and right nuts are circled in red.

Figure 4: Removing bottom center screw

11. Remove the wing nut from the right side of the monitor and set it aside.

Figure 5: Location of right-side wing nut

12. While supporting the monitor from the exterior, remove the wing nut from the left side of the monitor and set it aside.

Figure 6: Removing the left-side wing nut

13. With one hand positioned on the rear of the monitor and the other supporting its front on the exterior, carefully push the unit forward and lift it away from the jukebox.

Figure 7: Removing the monitor

- Steps 14 through 17 apply to the payment model of Angelina. For the "Free to Patron" (F2P) model, skip to step 18.

14. Remove the 3 screws (along the top) and 3 nuts (along the bottom) that fasten the payment panel. Remove the bill stacker so you can access and remove the interior nut. Once the nut is removed, you can place the bill stacker back into its position.

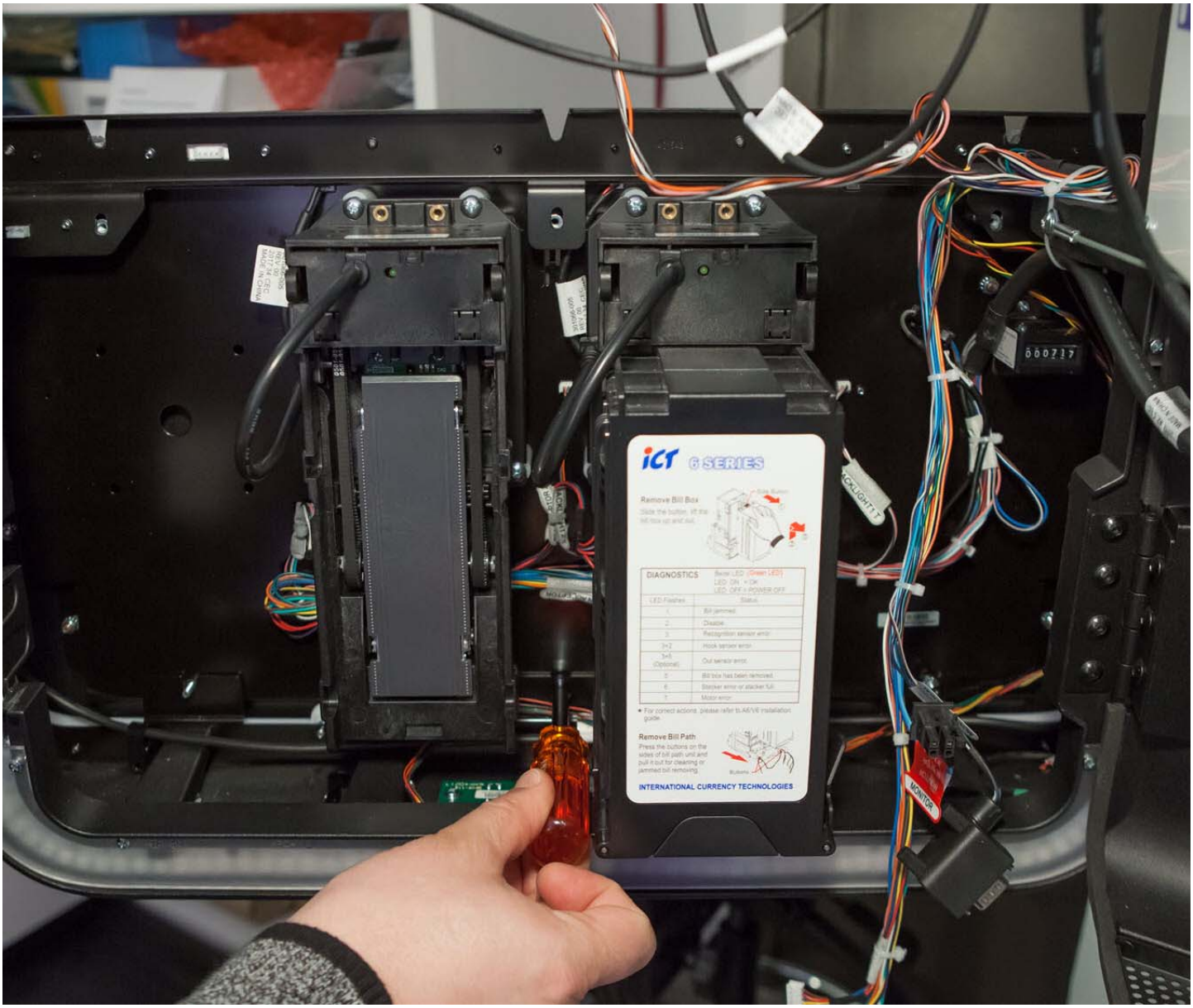

Figure 8: Removing the interior nut

15. Disconnect the payment squid cable from the Modular Hardware Platform.

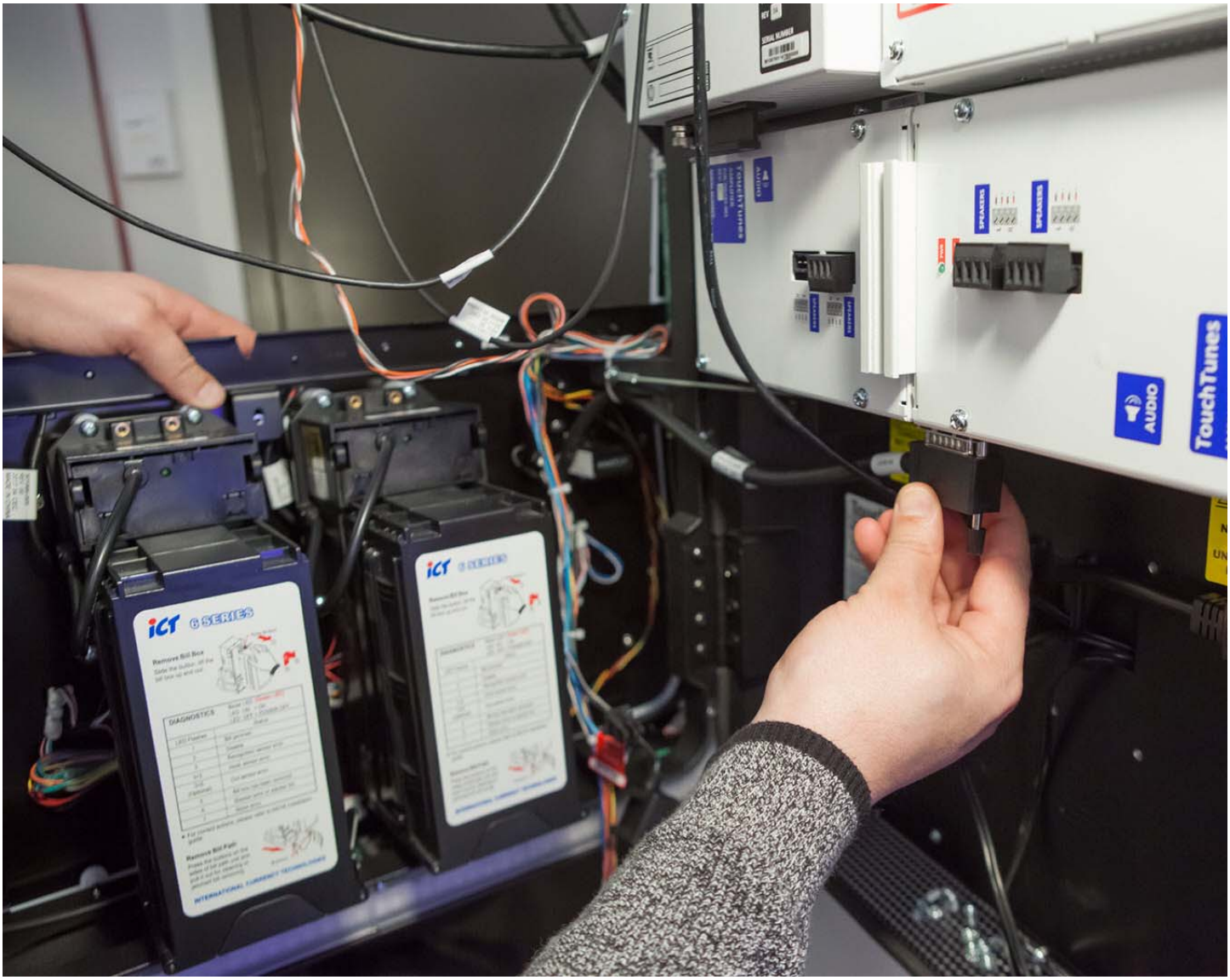

Figure 9: Disconnecting the payment squid cable

16. Cut the cable tie.

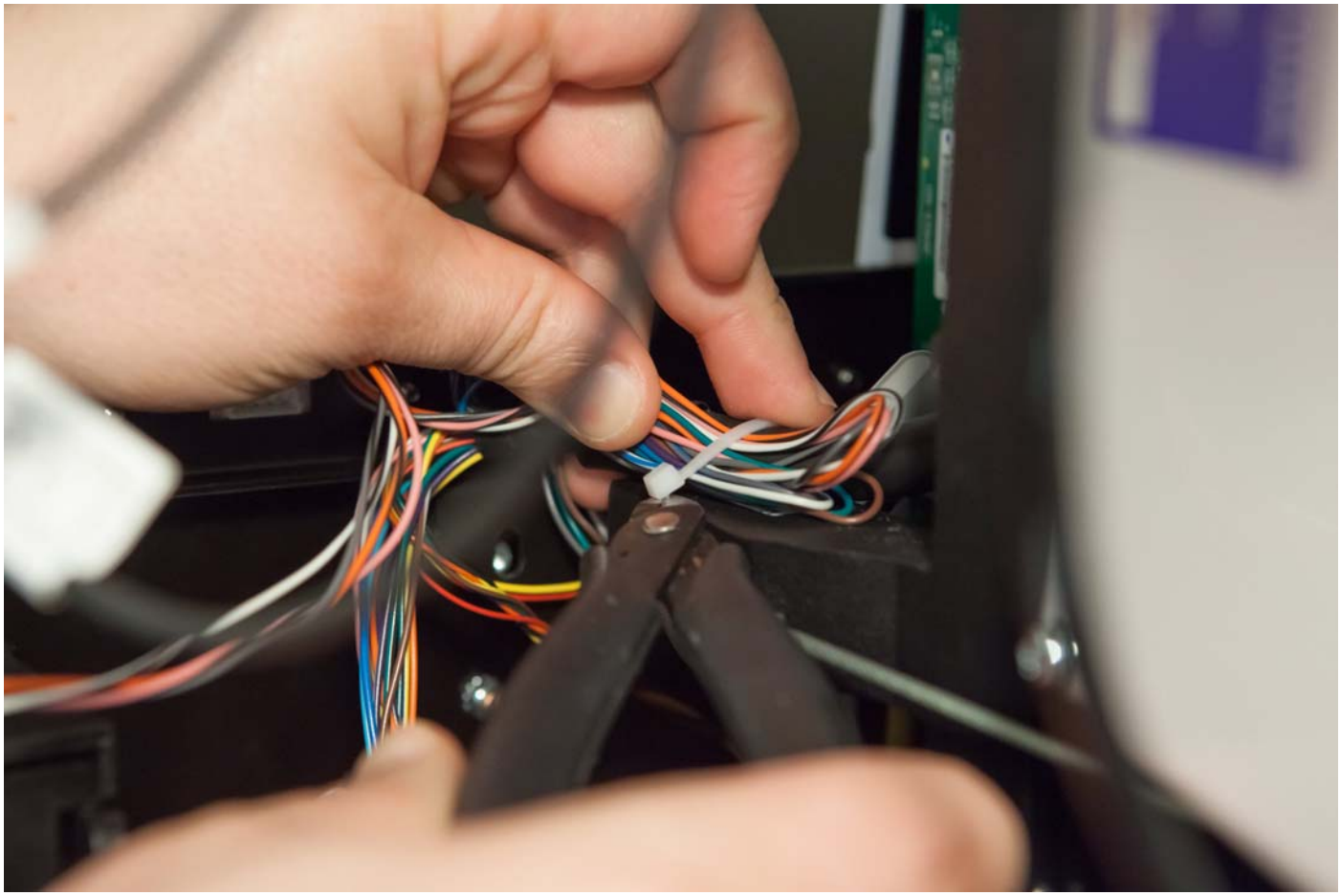

Figure 10: Cutting the cable tie

17. Remove the payment panel from the jukebox.

Figure 11: Removing the payment panel

18. Remove the 3 nuts from the back of the brand bar.

19. Disconnect the 4-pin connector.

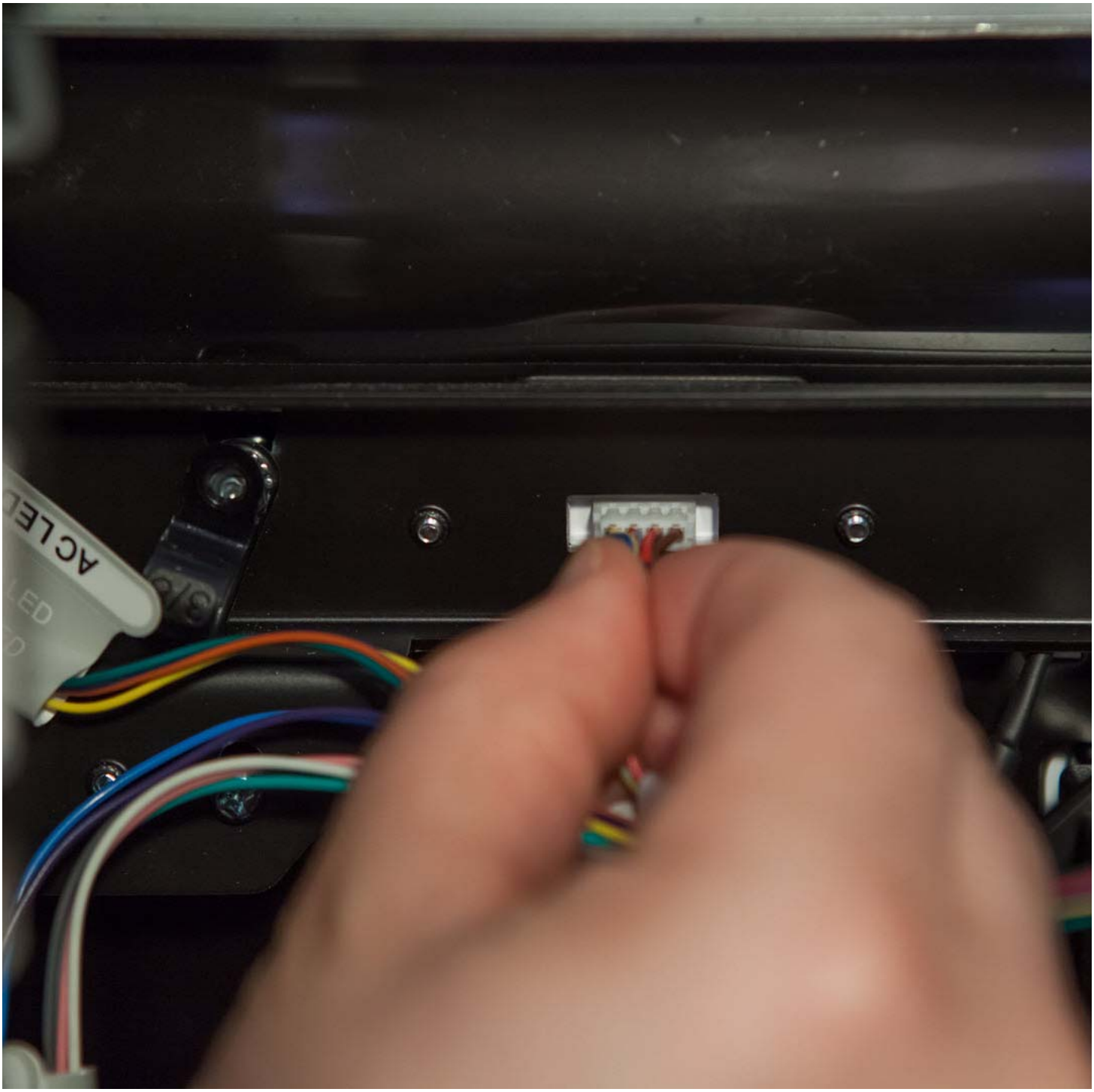

Figure 12: Disconnecting the 4-pin connector

20. Remove the 2 middle screws from the front of the brand bar and set them aside for re-use.

21. Unscrew the left and right screws on the front of the brand bar leaving them in place on the plastic cover and their corresponding washers on the inside of the brand bar cover still attached.

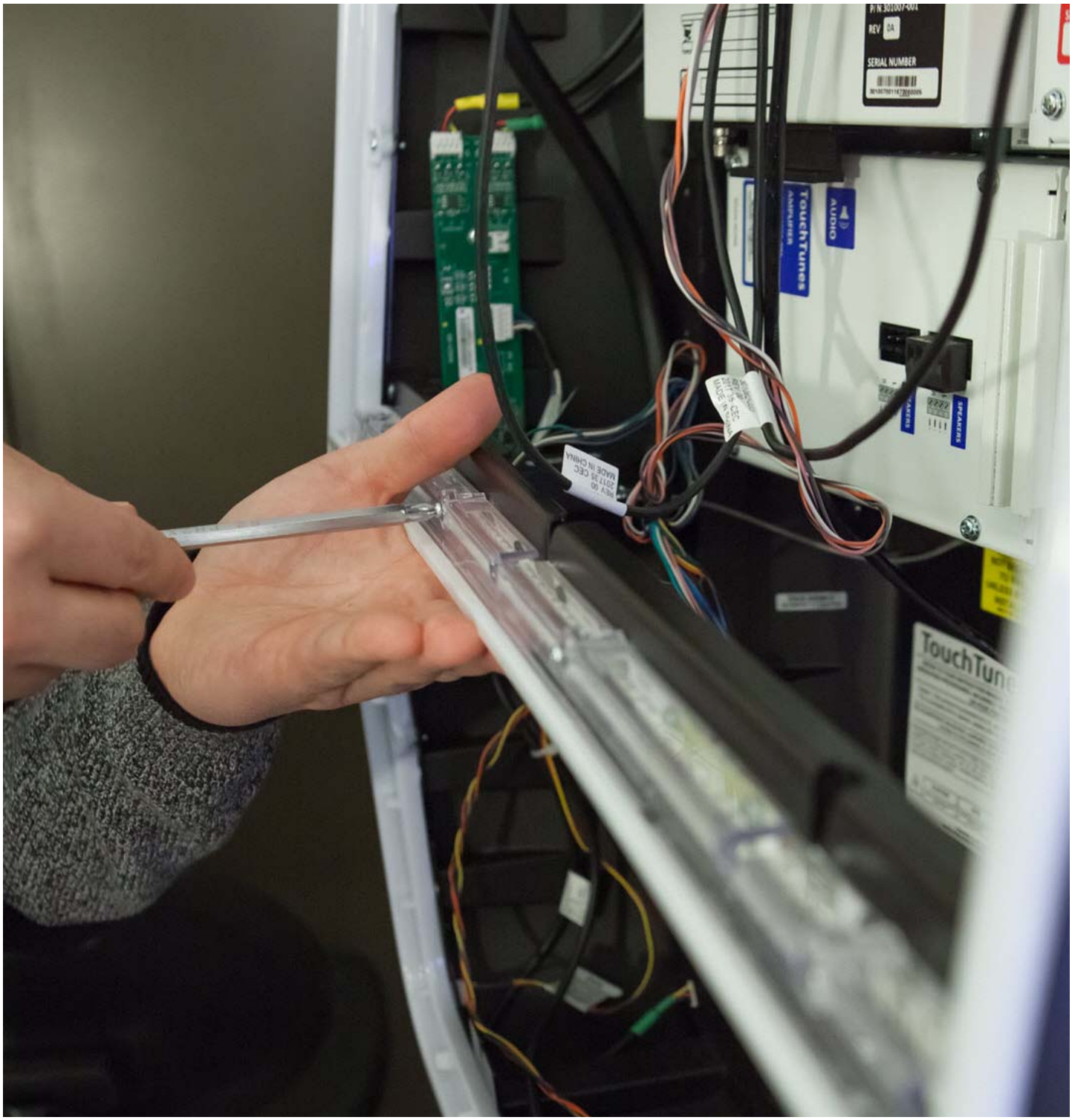

Figure 13: Removing the front screws

22. Set the brand bar plastic cover aside ensuring that the left and right screws and washers remain attached to the cover. If these items are lost during this procedure, then you can find replacement parts in your FRU kit.

23. Remove the 4 screws from the brand bar PCBA using a Phillips head screw driver #1 and set them aside for re-use.

Figure 14: Removing the PCBA screws

24. While supporting the PCBA and metal plate to which it is affixed, push the 4 black push pins out to remove them from the PCBA. Set the push pins and metal plate aside for re-use.

Figure 15: Removing PCBA push pins

25. Place the replacement PCBA on the metal panel (removed in the previous step) and insert a push pin into the first hole on the right to loosely fasten the PCBA to the metal plate.
26. Place the PCBA and metal plate onto the metal crossbar and push the first push pin into place.
27. While supporting the PCBA and metal plate, push the remaining 3 push pins into place.
28. Replace the 4 screws on the PCBA using a Phillips head screwdriver #1.
29. Place the plastic brand bar cover over the PCBA and fasten the 4 screws loosely (including the 2 washers on either side of the interior of the brand bar).
30. For a payment model jukebox only, place the payment panel you removed earlier into the jukebox and re-fasten all screws and nuts you set aside.
31. For a payment model jukebox only, reconnect the payment squid to the Modular Hardware Platform.
32. Now hand-tighten the screws you fastened loosely in step 29. Do **not** over-torque (TORQUE: 5Lbf*in).

33. Reconnect the 4-pin connector.

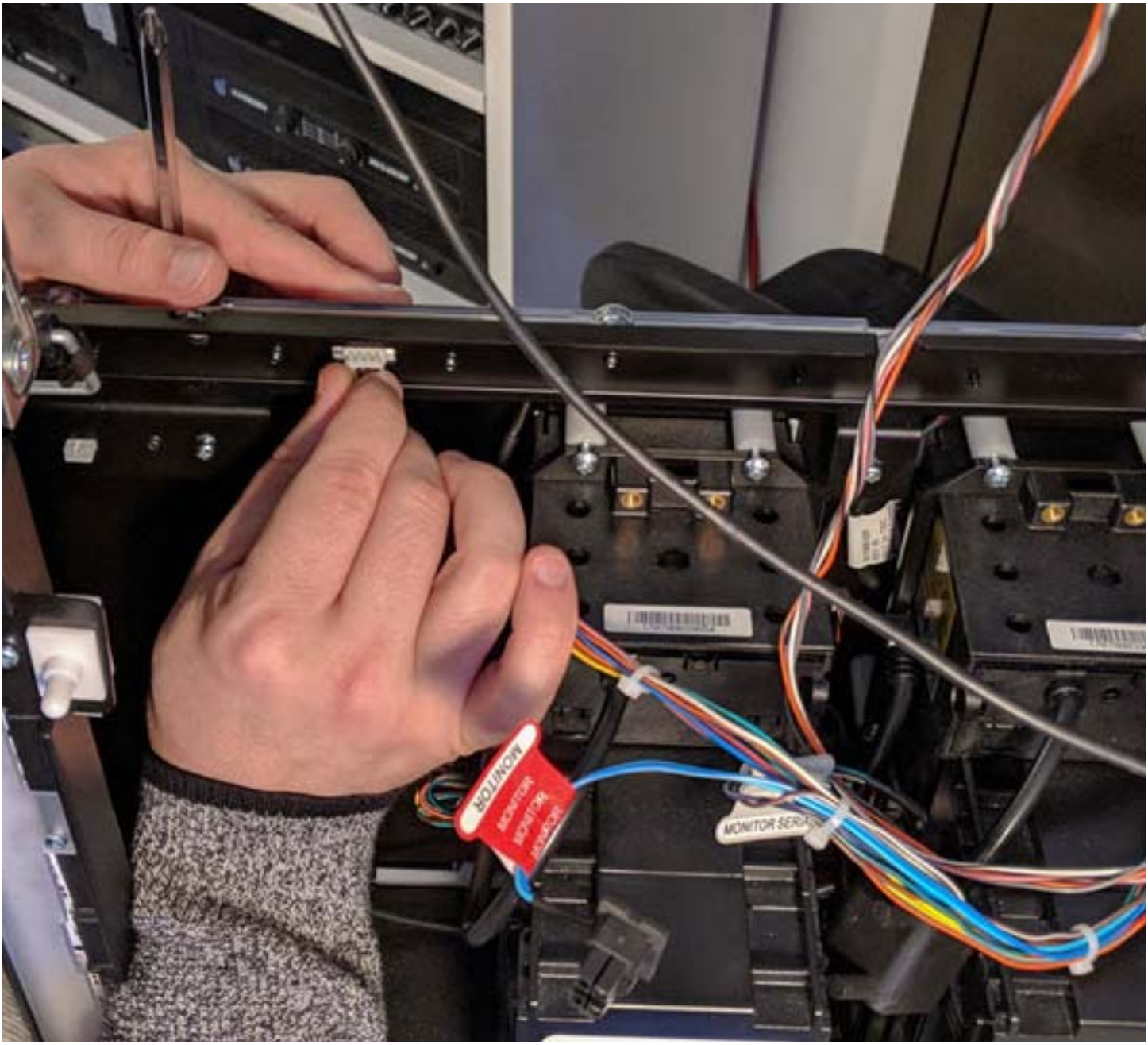

Figure 16: Reconnecting the 4-pin connector

34. Now re-install the monitor. Angle the monitor into position such that its 3 lower studs are seated in their tabs on Angelina's door. Doing so will provide support for the monitor while you maneuver it into its final position.

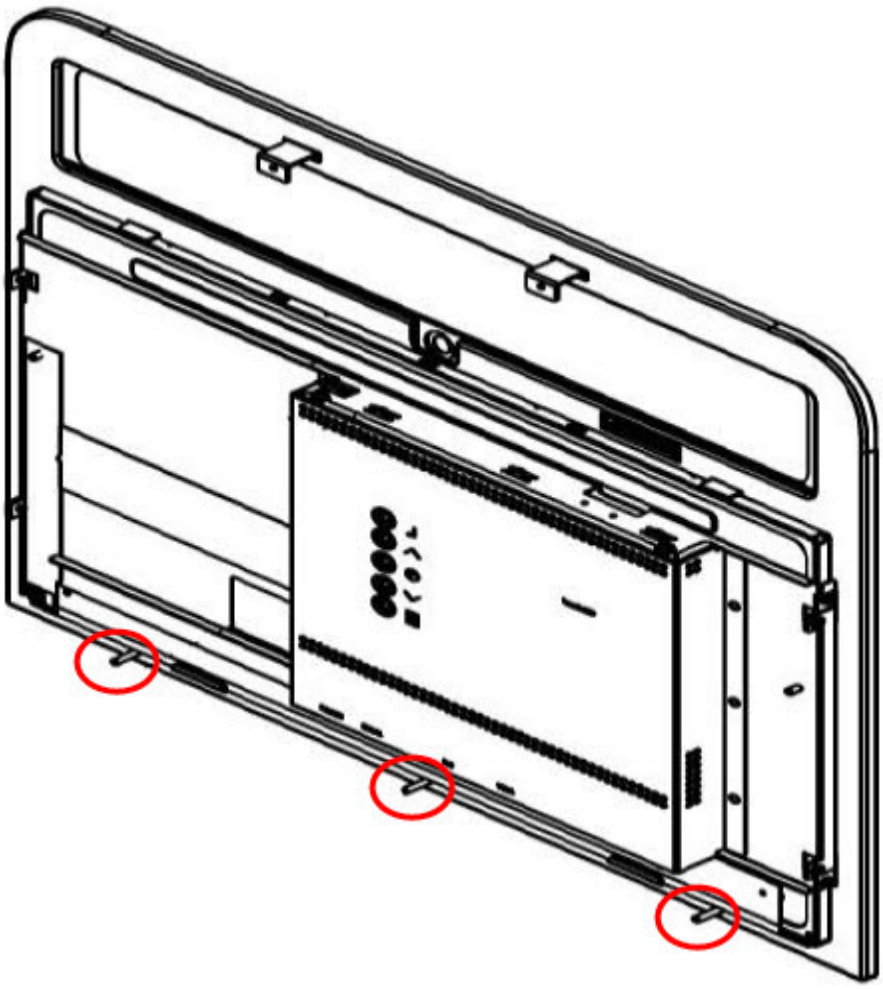

Figure 17: Location of studs on the monitor

35. Press firmly on the face of the monitor until it is properly seated and makes flush contact with the door.

CAUTION: DO NOT OVERTIGHTEN the nuts in the next step. Doing so may cause damage to the touchscreen. TouchTunes is NOT responsible for equipment damage caused by improper installation.

36. Fasten the 2 wing nuts (finger-tight) located on the left and right sides of the monitor. Start with the left wing nut first while supporting the monitor from the front of the jukebox exterior. See Figure 6: Removing the left-side wing nut for how to position yourself.

37. While pressing firmly on the top of the monitor from the exterior, fasten the 2 captive PEM screws located at the top of the monitor on the interior of the jukebox.

Figure 18: Fastening top PEM screws

38. Replace the 3 nuts located at the bottom of the monitor.
39. Reconnect all cables to the Visualizer (LED Array and PCB).
40. Reconnect the connections to the bottom panel on the monitor (power, Serial, and DVI).
41. Replace the cable ties removed earlier.
42. Plug in the AC power cable.
43. Power up Angelina and inspect the brand bar to ensure that there are no abnormal dim spots in the backlighting.

If the backlighting is illuminated and contains no dim spots, you have completed the replacement of the brand bar.

Contacting TouchTunes Technical Support

If you need help or have questions, call the TouchTunes 24/7 Service Hotline at 888-338-5853.

To help us assist you more effectively with problem reports, the following information may be required when contacting TouchTunes support:

- Jukebox model and ID
- Operator ID
- Serial number of the component you believe to be defective
- Date/time of the problem
- Actions performed immediately before the problem occurred
- Any additional comments that are relevant to the problem

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